

REMARKS

This Amendment filed with an RCE responds to the final Office Action dated January 7, 2009 and the Advisory Action dated April 16, 2009, and is respectfully submitted to be fully responsive to the rejections raised therein. Accordingly, favorable reconsideration on the merits and allowance are respectfully submitted to be proper.

In the present Amendment, claim 8 has been newly added. No new matter has been added. Support for the amendments can be found, e.g., in the specification at page 4, lines 13-15 and 29-32, and at page 9, lines 8-13.

Entry of the Amendment is respectfully submitted to be proper. Upon entry of the Amendment, claims 1 and 3-8 are all the claims pending in the application.

Claims 1 and 3-7 were rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over JP 05-302026 (Toda) in view of JP 05-059267 (Watabe).

Particularly, the Office Action asserted that Toda teaches a composition comprising (A) as oxyalkylene polymer having a molecular weight of from 4,000-30,000 and having at least two hydrolysable silyl groups at the chain ends. The Office Action conceded that Toda fails to explicitly teach the addition of an oxyalkylene polymer having the structural and molecular weight limitation as recited in claim 1. However, the Office Action asserted that a person having ordinary skill in the art would have been motivated to add the low molecular weight oxyalkylene polymers as taught by Watabe into the compositions taught by Toda. Per the Examiner, the motivation is derived from Watabe, asserted as teaching that the low molecular weight oxyalkylene polymers are effective plasticizers and display low migration, allowing the

compositions to be pliable. The Examiner also asserted that Watabe teaches that the low molecular weight oxyalkylene polymers are superior plasticizers when compared to other known plasticizers, such as phosphoric acid esters and aromatic carboxylic acid esters. Toda, according to the Examiner, teaches the addition of plasticizers which include the same phosphoric acid esters and aromatic carboxylic acid esters plasticizers as taught by Watabe.

The Examiner indicated that Applicant's argument that the present claimed invention achieves unexpectedly superior results when component (B) is added with component (A) was fully considered, but the Examiner asserted that the showing was not commensurate in scope with the base claim, and the Examiner maintained the rejection.

Traversal

Applicant respectfully traverses, and requests that the rejection be withdrawn in view of the amendment to the claims and the following remarks.

As an initial matter, Applicant respectfully request a copy of the machine-translated version of Toda. The Examiner acknowledged that the § 103 rejection is based on the disclosure of Toda, which was published in Japanese, and the Examiner indicated in the Office Action dated August 26, 2009, that a machine-translation of Toda "will be included in the next Office Action" (*see* Office Action dated August 26, 2009, p. 3). However, the translation on which the Examiner is relying upon has not been provided with either the Office Action of January 7, 2009, nor the Advisory Action of April 16, 2009.

In determining whether a claim is obvious under 35 U.S.C. § 103(a) based on combined teachings of references, the Office must consider the *KSR* Decision, principles of the law of obviousness, the basic factual inquiries of *Graham v. John Deere Co.*, and rationales to support the § 103 rejection. (*see* MPEP § 2141 I. - IV.).

Independent claim 1 is directed to a pressure sensitive adhesive product obtained by curing a pressure sensitive adhesive composition which comprises:

(A) a hydrolyzable silyl group-containing organic polymer containing at least 1.3 hydrolyzable silyl groups per molecule and having a number average molecular weight of 15,000 to 100,000, the main chain of the organic polymer being substantially composed of a repeating unit or units represented by the general formula $-R^1-O-$ (R^1 being a divalent alkylene group);

(B) a hydrolyzable silyl group-containing organic polymer containing 0.3 to 1.3 hydrolyzable silyl groups per molecule and having a number average molecular weight of 500 to 15,000, the main chain of which polymer being substantially composed of a repeating unit or units represented by the general formula $-R^1-O-$ (R^1 being a divalent alkylene group);

(C) a tackifier resin selected from the group consisting of terpene resins, terpene phenol resins, petroleum resins, rosin ester resins, and admixtures thereof, and a compounding ratio of which is 5 to 150 parts by weight, relative to a combined total of 100 parts by weight of (A) and (B).

JP 5-302026 (Toda) discloses a curable composition comprising (a) polymer having a main chain essentially consisting of a polyether and is terminated with a cross-linkable

hydrolyzable silyl group, (b) resin such as a rosin ester resin, and (c) curing catalyst. The polymer (a) has a molecular weight of 4,000 to 30,000 (paragraph [0013]). Watabe discloses a curable composition comprising a high molecular weight polymer (I) containing hydrolysable silicon groups and having a high molecular weight (8,000 to 50,000) and a low molecular weight compound (II) containing hydrolysable silicon groups and having a main chain of polyether. The compound (II) preferably has a molecular weight of 2,000 to 4,000 (paragraph [0035]).

“There is no presumption that all experimentation in fields in which there is already background of useful knowledge is “obvious to try,” without considering nature of science or technology involved; rather, each case must be decided in its particular context, including characteristics of science or technology, its state of advance, nature of known choices, specificity or generality of prior art, and predictability of results in a area of interest.” (*Abbott Laboratories v. Sandoz Inc.*, 89 USPQ2d 1161 (Fed. Cir. 2008)).

One difference between the presently claimed invention and the sealing materials described in Toda and Watabe is that neither Toda nor Watabe teaches the combination of (A) a hydrolyzable silyl group-containing organic polymer having a number average molecular weight of 15,000 to 100,000, (B) a hydrolyzable silyl group-containing organic polymer having a number average molecular weight of 500 to 15,000, and (C) a tackifier resin providing a high adhesive strength.

Another difference is that the compositions in Toda and Watabe are used for a sealing materials. The composition described in Toda is as a sealing material formed by using a polymer having a main chain essentially consisting of a polyether and terminated with a cross-linkable

hydrolysable silyl group as a base resin (*see* Abstract). Watabe is directed to a room temperature curable composition which is curable in the presence of moisture (*see* Watabe at ¶ [0001]). The composition in Watabe is also a sealing agent (*see* Watabe at ¶ [0048]). Thus, the composition in Toda and Watabe are both sealing agents, and there is no teaching in either reference of a pressure adhesive composition.

Applicant respectfully submits that the compositions for sealing material/agents have considerably different properties compared to the presently claimed pressure sensitive adhesive product obtained by curing a pressure sensitive adhesive composition. Particularly, a sealing material forms a permanent bond, while the pressure sensitive adhesive product according to the present invention is removable and can be repeatedly adhered or unstuck. It is impossible therefore to arrive at a pressure sensitive adhesive composition from a description of the sealing materials described in Toda and Watabe.

If the purpose of a product is different from that of another product, an optimal composition of the product naturally differs from that of the other product. An optimal composition for a pressure sensitive adhesive product and an optimal composition for a sealing material are very different. Therefore, it is impossible to arrive at an optimal composition for a pressure sensitive adhesive product from a reference merely teaching a broad scope of a sealing material.

In summary, Applicant respectfully submits that artisans in the field of the pertinent art of pressure sensitive adhesive composition which may be applied using little to no organic solvent would neither have a motivation to seek nor an expectation of success in achieving good pressure

sensitive adhesive characteristics in view of the teachings of sealing material in Toda alone or combined with Watabe. Accordingly, the rejection based on Toda in view of Watanabe should now be withdrawn.

Even if, *arguendo*, the Examiner believes *prima facie* obviousness exists, *prima facie* obviousness is a rebuttable presumption, and therefore the Examiner must consider rebuttal evidence proffered to overcome the rejection. See MPEP § 2141 IV. and V. Such evidence and arguments may be presented in the specification. See *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684 (Fed. Cir. 1995)). A specification that contains more than a mere conclusory assertion of unexpected results is pertinent evidence. *Id.* The Office is obliged to consider all rebuttal evidence, including evidence that the claimed invention yields unexpectedly superior or improved properties not present in the prior art. (*Id.* at 1687; see also, *In re Dillion*, 919 F.2d 688, 692, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990)). Thus, Applicant respectfully submits that the Examiner should carefully reconsider the evidence present in this case.

Applicant specifically requests the Examiner's reconsideration of the evidence of unexpected superior results. Applicant submits that the combination of components (A), (B) and (C) as recited in independent claim 1 exhibits unexpected superior results. Specifically, the combination of these components achieve advantageous results, as is clearly shown in the Examples of the present application, as discussed below. "Adhesive strength" as listed in Table 1 means a strength of a temporary bond between the tape and the adhered. See the Specification at page 20, lines 19-27.

In present Example 1, for instance, the pressure sensitive adhesive composition is E-1. E-1 is a mixture of the polymer mixture D-1 (100 weight parts) and the tackifier resin (50 weight parts). D-1 is obtained by mixing the polymer A-1 (100 weight parts) and the polymer B-1 (30 weight parts). The adhesive strength (i.e., tack strength) of the pressure sensitive adhesive film is 30.6 N/25 mm.

In Comparative Example 2, the pressure sensitive adhesive composition is E-5, which is a mixture of the polymer A-1 (100 weight parts) and the tackifier resin (100 weight parts). The adhesive strength (i.e., tack strength) of the pressure sensitive adhesive film is 10.2 N/25 mm.

In Comparative Example 1, the pressure sensitive adhesive composition is E-4. E-4 is a mixture of the polymer mixture D-4 (100 weight parts) and the tackifier resin (50 weight parts). D-4 is obtained by mixing the polymer A-1 (100 weight parts) and Actcol P-23 (30 weight parts). The adhesive strength (i.e., tack strength) of the pressure sensitive adhesive film is 7.6 N/25 mm.

E-1 (Example 1) is different from E-5 (Comparative Example 2) in that the polymer B-1 is contained in the former. Adding a certain amount of the polymer (B) tripled the adhesive strength (i.e., tack strength) of the cured product.

E-1 (Example 1) is also different from E-4 (Comparative Example 1) in that the polymer B-1 has a hydrolysable silyl group. The presence of the hydrolysable silyl group causes the adhesive strength (i.e., tack strength) of the cured product to quadruple.

In response to the Examiner's assertion that a composition containing additional solvent cannot be compared directly to a composition without additional solvent, Applicant respectfully submits that in Comparative Example 2, a solvent is used only to reduce viscosity of the composition at the time of application so as to improve workability. Even if a composition initially contained an additional solvent, the solvent vaporizes before the film is attached and does not influence the adhesive strength. Therefore it is possible to compare the two compositions.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby earnestly solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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